

REMARKS

The rejections presented in the Office Action dated September 28, 2005 have been considered. Claims 1, 9, 19, and 22 are amended to further clarify the invention. Claims 34-37 are added to depend from independent claims 1, 9, 19, and 22, respectively, and more particularly claim the invention. Claim 7 is canceled for consistency with amended claim 1. Claims 1-6, 8-27, and 34-37 remain. Reconsideration and allowance of the application are respectfully requested.

The Office Action fails to show that claims 1-10, 14-23 and 25-27 are anticipated by US patent 5,553,001 to Seidel et al. ("Seidel") under 35 USC §102(b). The rejection is respectfully traversed because the Office Action fails to show that all the limitations of the claims are taught by Seidel. Each of independent claims 1, 9, 19, and 22 includes limitations directed to displaying a respective quantity for each type of remaining available FPGA resource for the FPGA-based SoC, and a respective quantity of each type of resource used to implement said first system component. These limitations do not appear to be either taught or suggested by Seidel. Thus, claims 1, 9, 19, and 22 are not anticipated by Seidel.

Claims 2-8, 10, 14-18, 20, 21, 23, and 25-27 are dependent claims of independent claims 1, 9, 19, and 22. These dependent claims include all of the limitations of the base claims and any intervening claims and recite additional features, which further distinguish these claims from the cited references. For example, claim 4 includes limitations of "choosing a third system component ..., said third system component being an alternative to said second system component." Because Siedel appears to teach directly assigning components of the design to types of resources (col. 6, lines 13-19) without considering alternative components for the design, Siedel does not teach or suggest the limitations of claim 4. Also, claims 14 and 25 include limitations of "determining incompatibility between said selected system components..." The Office Action asserts that these limitations are taught by Siedel (col. 1, lines 1-15); however, this cited text shows that Seidel teaches checking for compatibility between user logic and special resources, not checking for incompatibility between components of the system. Thus, the Office Action does not show that claims 2-8, 10, 14-18, 20, 21, 23, and 25-27 are anticipated by Seidel.

The rejection of claims 1-10, 14-23 and 25-27 should be withdrawn because the Office Action does not show that Seidel teaches all the limitations of the claims.

The Office Action does not establish that claims 11-13 and 24 are unpatentable under 35 USC §103(a) over Seidel in view of "Fong" (U.S. Patent No. 6,366,945 to Fong et al.). The rejection is respectfully traversed because the Office Action fails to show that all the limitations are suggested by the Seidel-Fong combination, fails to provide evidence to support a motivation to modify Seidel with Fong, and fails to show that the modification could be made with a reasonable likelihood of success.

Claims 11-13, and 24 are dependent claims of independent claims 9 and 22, and the limitations of independent claims 9 and 22 are not shown to be taught by Seidel as discussed above. Thus, the limitations of claims 11-13 and 24 are not shown to be suggested by the Seidel-Fong combination.

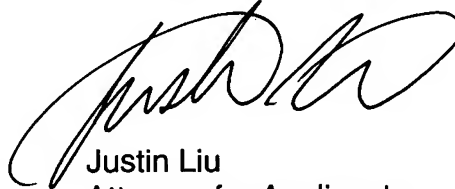
In addition, the Office Action fails to provide a proper motivation for modifying the teachings of Seidel with teachings of Fong. Seidel appears to teach a static assignment of design features to appropriate chip resources (col. 6, lines 13-22). Fong appears to teach a dynamic reallocation of computing environment resources between partitions in response to triggers such as demand changes (col. 3, lines 12-30). The Office Action fails to provide any evidence that demonstrates any need by Seidel for modifying the static allocation to accommodate Fong's dynamic reallocation. Furthermore, there is no apparent reasonable likelihood of successfully modifying Seidel's static assignment of FPGA resources with Fong's dynamic partitioning of a computing cluster.

Therefore, the rejection of claims 11-13 and 24 should be withdrawn because a *prima facie* case of obviousness has not been established.

CONCLUSION

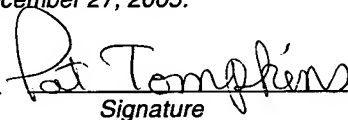
Reconsideration and a notice of allowance are respectfully requested in view of the Amendments and Remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

Respectfully submitted,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on December 27, 2005.

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JL:pat